

We claim:

1. A configuration for generating an information-bearing response signal to a received electromagnetic radiation, comprising:

a receiver for the electromagnetic radiation;

a transducer coupled to the receiver for changing the radiation into a storable secondary energy;

a storage device connected to said transducer for storing the storable secondary energy;

a nonlinear element connected to said storage device for generating a pulse-shaped radio-frequency signal from the storable secondary energy when a threshold value is reached in the storage device;

a coding element connected to said nonlinear element for impressing information on the radio-frequency signal to generate a response signal; and

a transmitting antenna connected to said coding element for broadcasting the response signal.

2. The configuration according to claim 1, wherein said transducer is a heating element and said storage device is a heat storage device.

3. The configuration according to claim 2, wherein said storage device a pyroelectrical element.

4. The configuration according to claim 1, wherein said receiver is a radio receiver.

5. The configuration according to claim 1, wherein a photoelectric element acts as said receiver and said transducer.

6. The configuration as claimed in claim 5, wherein said storage device stores electrical energy.

7. The configuration according to claim 1, wherein a photovoltaic element acts as said receiver and said transducer.

8. The configuration as claimed in claim 7, wherein said storage device stores electrical energy.

9. The configuration according to claim 1, wherein said storage device is a capacitor.
10. The configuration according to claim 1, wherein said storage device is an electrochemical storage element.
11. The configuration according to claims 1, wherein said receiver is an infrared receiver.
12. The configuration according to claim 1, wherein said nonlinear element is a spark gap.
13. The configuration according to claim 1, wherein said nonlinear element is a diode.
14. The configuration according to claim 1, wherein said nonlinear element is a gas discharge tube.
15. The configuration according to claim 1, wherein said nonlinear element is an avalanche semiconductor element.
16. The configuration according to claim 1, wherein said coding element is a SAW component.

17. The configuration according to claim 1, wherein said coding element is a resonator configuration.

18. The configuration according to claim 1, wherein said coding element is a delay line.

19. The configuration according to claim 1, wherein said coding element is a dielectric filter.

20. The configuration according to claim 1, wherein said coding element is a coaxial ceramic filter.

21. The configuration according to claim 1, wherein said coding element is a volume transducer.

22. The configuration according to claim 1, wherein said coding element is an LC filter.

23. The configuration according to claim 1, wherein said coding element is a sensor.

24. A method for remotely interrogating a configuration for generating an information-bearing response signal to a

received electromagnetic radiation, which sequentially
comprises:

providing a configuration;

generating an electromagnetic radiation of relatively low
amplitude in an interrogating device;

transmitting the radiation to the configuration;

storing secondary energy of the radiation in the
configuration;

generating a short pulse-shaped radio-frequency signal of
relatively high amplitude from the stored secondary energy
when a threshold value is reached;

impressing an information item on the short radio-frequency
signal to generate a response signal; and

radiating the response signal.

25. The method according to claim 24, which further comprises:

storing the secondary energy as heat in a pyroelectrical element;

generating a temperature-dependent pyroelectrical voltage with the pyroelectrical element; and

generating with a nonlinear element the radio-frequency signal when a predetermined pyroelectrical voltage is reached as threshold value.

26. The method according to claim 24, wherein the information item is an identification code.

27. The method according to claim 24, which further comprises impressing the information relating to a type of an environmental parameter on the radio-frequency signal with a sensor that specifically reacts to the environmental parameter.

28. The method according to claim 24, which further comprises impressing the information relating to a quantity of an

- 29 -